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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,417	07/10/2003	Blaine Staver	13720	3037

7590 03/17/2004

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Staten Island, NY 10304

EXAMINER

WRIGHT, DIRK

ART UNIT	PAPER NUMBER
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3681

DATE MAILED: 03/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/617,417

Applicant(s)

STAYER, BLAINE

Examiner

Dirk Wright

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>07102003</u> . | 6) <input type="checkbox"/> Other: ____ |

Claims Rejected

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the phrase “typical operation” is undefined in the claim and is therefore indefinite. In claim 5, the term “analogous” is confusing, since it is not clear as to whether or not the speed gear is the same as, or different from, the input gear. Further, the phrase “reverse planetary motion” is indefinite because such “forward” motion has not previously been defined. In claim 7, the phrase “the tendency of device” is not clear and confusing.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, as best understood, are rejected under 35 USC 103 as being obvious over Orner '375, Mleczko '506, or Sullivan '347. Applicant appears to be claiming a continuously variable transmission (CVT) with a planetary gear set 10 and an adjustable braking device 16. The braking device is variable to cause a variable reaction force on the planetary carrier 27. Input is provided on one of the sun gears 28, and output is taken from sun gear 30. There is no ring

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gear. The planet gears 32 and 34 are joined to rotate together. This type of transmission has been around since at least 1932, as shown by Sullivan.

Sullivan shows a planetary CVT with an input provided at sun gear 21, and output taken from sun gear 22, planet gears 24 on shafts 23 of planet carrier 18 provide a variable reaction force by the adjustment of valve 34 of hydraulic brake 32. The brake is connected to the carrier via a pair of gears 25, 26. Sullivan does not show a pair of gears driving input shaft 13 or output shaft 15, but to provide the pairs would have been an obvious variation of the Sullivan device in case more speed reduction were desired.

Likewise, Mleczko shows a planetary CVT with input shaft 14, output shaft 16, an input sun gear 44, an output sun gear 52, a fluid pump 74, 76 for variably constraining the rotation of carrier 34, 36. The fluid flow through the pump is controlled to regulate the speed ratio of the transmission. Planet gears 58 and 64 engage the sun gears and provide power rotation thereof. Output can alternatively be taken from shaft 88, which is driven by gears 84 and 86 from the output shaft 16. Mleczko doesn't show a pair of gears driving the input shaft, but it would have been obvious to one of ordinary skill in this art to provide them for situations requiring greater speed reduction.

Finally, Orner '375 shows a planetary CVT with fluid pump control of the carrier 2, 3. Input is provided at sun gear 17, output is taken from sun gear 20, and pump gears 100 and 101 provide a variable reaction force to regulate the speed ratio of the transmission. Orner doesn't show pairs of gears driving the input and output shafts 15 and 16, but it would have been obvious to one of ordinary skill in this art to provide them in case further speed reduction were required.

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Prior Art Discussed

The examiner has considered the references cited on applicant's Information Disclosure Statement, filed July 10, 2003. None of them show a planetary CVT with a regulated braking device connected to a planet carrier.

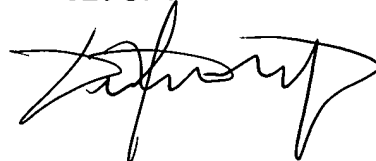
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dirk Wright whose telephone number is 703-308-2160. The examiner can normally be reached on Monday through Friday, 8AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 703-308-0830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dirk Wright
Primary Examiner
Art Unit 3681



DW
Saturday, March 13, 2004